## A VIKING-AGE SILVER INGOT FROM NEAR EASINGWOLD, YORKS. (Fig. 2)

A small cast silver ingot was found by a metal-detector user in February 1989 near Easingwold, Yorkshire, some thirteen miles north of York. The site, a ploughed field, has also yielded a mid 9th-century coin of Æthelred II of Northumbria, a number of later medieval coins, and a copper-alloy tumbrel for weighing coins, probably also of later medieval date but unfortunately with a piece broken from the arm so that its balancing weight cannot now be determined. Despite many hours of careful searching no further pieces of silver have been found, and so this appears to have been an isolated loss rather than part of a dispersed hoard. The ingot is roughly triangular in cross section with rounded corners and rounded, tapering ends. It is 30 mm long and 8 mm wide at the broadest part. It weighs 11.66 g. The ingot has suffered very little corrosion, the slight pitting of its surface being probably due to the nature of the original mould (possibly of sand). What was the upper surface during casting (the lower one in the drawing, Fig. 2) has a slight depression, the result of some shrinkage as the metal cooled. There are no signs of any secondary treatment such as the 'pecks' or 'nicks' found on the metalwork from the Cuerdale hoard (deposited c. 905) and many Scandinavian Viking-Age finds.

Ingots have been used in many periods as an alternative to coinage for storing and transporting wealth or bullion. They are difficult to date, unless they happen to have been found in a stratified context or in a hoard associated with datable material. Some Roman



FIG. 2

Viking-Age silver ingot from near Easingwold, Yorks. Scale 1:1

silver ingots are known from Britain,<sup>3</sup> and one Pictish ingot has been recorded.<sup>4</sup> However, the one period from which ingots are plentiful in Britain and Ireland is the late 9th and 10th centuries in the English Danelaw and the Irish Sea littoral. In much of this area there existed a bullion economy in which coins, although plentiful, were only used in transactions by weight. Hence the hoards often contain a mixture of Viking, English, Carolingian, and Islamic coins struck to different weight standards, along with pieces of hacksilver and ingots. The contents of these hoards often show signs of 'pecking' or 'nicking', typically Scandinavian Viking-Age methods of testing the purity of the silver by stabbing the surface or slicing the edge with a knife. To the people who assembled the hoards coins had no assured nominal value but merely an intrinsic worth based on their metal content. The attitude may have been different in the commercial centres such as York, where a substantial and closely regulated coinage was produced under Viking control from at least  $\epsilon$ . 895 and perhaps earlier.<sup>5</sup> There, and especially in the surviving Anglian community, a denarial economy may well have existed alongside the more primitive bullion one that is implied by the mixed coin finds from 16–22 Coppergate.<sup>6</sup>

Dr Susan Kruse, who has made a detailed study of the insular Viking-Age ingots, has kindly examined the find from near Easingwold and has confirmed that it is similar to ones in the Cuerdale hoard,<sup>7</sup> the Scotby hoard (deposited c. 935),<sup>8</sup> the Chester 1950 hoard (deposited c. 970),<sup>9</sup> and the Bowes Moor hoard which consisted of nineteen ingots, a piece of slag, and a fragment of ornamental silver attributable to the 10th century.<sup>10</sup> Comparable examples have also been found in a number of hoards from Ireland of this period. Some of these ingots are approximately triangular in section, as with this one, while others are round or rectangular. They vary considerably in size and weight. Kruse has shown that the cast

ingots from England and Wales range from 2 g to 283 g in weight, with significant clustering at 20-30 g and possibly around some multiples and fractions of c. 25/26 g. 11 Certain rough standards thus appear to have been aimed at for convenience, but the degree of imprecision is such that they would have had to have been weighed out in any transaction. The Easingwold ingot at 11.66 g (equivalent to about eight Viking-Age pennies) falls towards the lighter end of the weight range and coincides with a minor peak in the distribution at 10-12 g. How this relates, if at all, to a postulated unit of c. 25/36 g is unclear, for Kruse's statistical analysis of the ingots suggests that a one-third (c. 8.5 g) and two-thirds (c. 17 g) standard may have been aimed at, but probably not (or not often) half the unit (c. 13 g). 12

The ingot therefore has all the characteristics of an Anglo- or Hiberno-Scandinavian one of the late 9th to mid 10th century. If this identification is correct, it is the first Viking-Age ingot to be recorded as a single-find from Britain, and provides some additional evidence to suggest that even within the immediate hinterland of York a bullion economy may have been operating during the first decades of Scandinavian settlement in Northumbria.

## ACKNOWLEDGEMENTS

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M. A. S. BLACKBURN and M. J. BONSER

## NOTES

<sup>1</sup> The ingot was sold at a London coin fair in October 1989, after we had had a full opportunity to study it. <sup>2</sup> Surface pitting from casting in sand and shrinkage are discussed in S. E. Kruse, R. D. Smith, and K. Starling,

'Experimental casting of silver ingots', Historical Metallurgy 22 (1988), 87-92.

<sup>3</sup> E.g. the four cut pieces included in a large hoard of bronze coins from Oldcroft (Glos.), deposited A.D. 354/9; J. F. Rhodes, 'The Oldcroft (1971-2) hoard of bronze coins and silver objects', Numismatic Chronicle 7th ser. 14 (1974), 65–74. Dr Kruse has suggested to us that these ingots and the Pictish one from Clatchard Craig have probably been hammered, unlike many Viking-Age ones and that published here.

<sup>4</sup> J. Close-Brooks, 'Excavations at Clatchard Craig, Fife', *PSAS* 116 (1986), 117-84, at 167-68. <sup>5</sup> C. S. S. Lyon and B. H. I. H. Stewart, 'The Northumbrian Viking coins in the Cuerdale hoard', *Anglo-Saxon Coins*,

ed. R. H. M. Dolley (London, 1961), 96-121.

<sup>6</sup> The finds from 16-22 Coppergate include a Carolingian denier, a forgery of an Islamic dirhem, and a light penny from Hedeby of the 9th century; E. J. E. Pirie, M. M. Archibald, and R. A. Hall, Post-Roman Coins from York Excavations 1971-81 (The Archaeology of York 18:1; London, 1986), 55. The existence of a bullion economy in the York region is also implied by the hoard from Bossall, some seven miles to the north-east of York, containing Viking, English, and Islamic coins and silver ornaments deposited c. 925; C. E. Blunt and B. H. I. H. Stewart, 'The coinage

of Regnald I of York and the Bossall hoard', Numismatic Chronicle, 143 (1983), 146-63.

7 E. Hawkins, 'An account of coins and treasure found in Cuerdale', Arch. J., 4 (1847), 112-30, 189-99.

8 S. E. Kruse, 'The Viking-age silver hoard from Scotby; the non-numismatic element', Trans. Cumberland and Westmorland Antiq. and Archaeol. Soc., 86 (1986), 79-83.

9 G. Webster, R. H. Dolley, and G. C. Dunning, 'A Saxon treasure hoard found at Chester, 1950', Antiq. J., 33

(1953), 22-32.

10 B. J. N. Edwards, 'Viking silver ingots from Bowes Moor, Yorkshire', Antiq. J., 65 (1985), 457-59. Bowes Moor was in the pre-1974 county of Yorkshire, but is now in Co. Durham. The hoard has since been acquired by the Bowes

<sup>11</sup> S. E. Kruse, 'Ingots and weight units in Viking age silver hoards', World Archaeology, 20 (1988), 285-301, at

293-94.

12 Dr Kruse has kindly drawn our attention to a possible standard of c. 12 g suggested by the weight distribution of

Will a A william Locate from England and Wales and their Economic Implications weights from Birka graves; see S. E. Kruse, Viking-Age Silver Ingots from England and Wales and their Economic Implications (unpublished Ph.D. thesis, University of London; 1988), 143; O. Kyhlberg, Vikt och Värde (Stockholm Studies in Archaeology 1; Stockholm, 1980), 265–66. There is also a lead weight set with a reused piece of enamelled metalwork of the 8th or 9th century from excavations at Clementhorpe, York, weighing 11.8 g; D. Tweddle, 'The weight of the evidence', *Interim*, 9:2 (1983), 24–25 (weight supplied by Dr Kruse, pers. comm.). However, the search for an appropriate weight standard may be unjustified in view of the general vagueness of the weight distributions of the ingots.